

## MEMORANDUM

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### Draft Performance Measures (Modified)

PREPARED FOR: Steve Yeager  
PREPARED BY: Performance Measures Team  
DATE: January 3, 1996

The attached document contains our current thinking on performance measures--the measures themselves, how they are to be used, and future steps to complete the performance process. These measures have been modified based on feedback from CALFED staff, the PCT, and specific input from Fish and Game. The current measures do not include costs. Costs will be added to the process in the upcoming weeks.

Because the comments from Fish and Game were so well developed (F. Wernette memo of December 13 and P. Chadwick memo of December 18), we have incorporated many of their suggestions. We have summarized our review of their input below.

#### **Aquatic Habitat Performance Measure Comments.**

DFG suggested changing the factor "gravel" to "spawning substrate" and adding "dams" to "diversion effects". These changes have been made. DFG also suggested adding a factor for reducing adverse hydrodynamic effects (reverse flows). We have already included a factor for transport conditions that includes necessary channel flows to move organisms from spawning to rearing habitat and prevent movement of organisms away from preferred habitat areas. They also suggested adding a factor for controlling invasive aquatic plants. We have already included a controlling benefit factor for primary production that includes the general conditions necessary to support shallow aquatic habitat productivity (food-web dynamics). Introduced species may have a negative effect on primary production, so actions that control invasive aquatic organisms are given positive scores for primary production.

Their biggest suggested change is splitting the measure into habitat suitable for three groups of organisms--anadromous (salmonids), anadromous (non-salmonids), and estuarine fish. The habitat factors for each group remain similar, although the weights are different. We have not made this split at this time because we do not think that the habitat benefits of CALFED actions can be accurately differentiated for these three types of fish. (DFG did not provide the weights to combine the separate habitat measures into an overall performance measure). The species of interest performance measure does provide an indication of benefits from an action for different species, which we assume was the intent of the DFG suggestion. We have changed our weights to reflect the DFG values for each habitat factor.

#### **Species of Interest Performance Measure Comments**

DFG suggested a slightly better objective statement; we have modified ours accordingly. They also suggested adding a separate San Joaquin Fall Run category and changing "waterfowl" to "wintering wildlife", which we have done. We have also shifted the weights to follow their values. They have also suggested adding "other estuarine fish" as a category. We have not added this because this sort of general benefit is already included in the Aquatic Habitat Performance Measure.